

NOTICE TO BIDDERS SPECIFICATION NO. 04-305

The City of Lincoln, Nebraska intends to purchase and invites you to submit a sealed bid
for:

5 CUBIC YARD DUMP BODY/HYDRAULIC SYSTEM/LIGHTING SYSTEM SNOW PLOW HITCH

Sealed bids will be received by the City of Lincoln, Nebraska on or before **12:00 noon Wednesday, December 08, 2004** in the office of the Purchasing Agent, Suite 200, K Street Complex, Southwest Wing, 440 South 8th Street, Lincoln, Nebraska 68508. Bids will be publicly opened and read at the K Street Complex.

Bidders should take caution if U.S. mail or mail delivery services are used for the submission of bids. Mailing should be made in sufficient time for bids to arrive in the Purchasing Division, prior to the time and date specified above. Late bids will not be considered. Fax or e-mail bids are not acceptable. Bid response must be in a sealed envelope.

PROPOSAL
SPECIFICATION NO. 04-305

BID OPENING TIME: 12:00 NOON

DATE: Wednesday, December 08, 2004

The undersigned, having full knowledge of the requirements of the City of Lincoln for the below listed phases and the contract documents (which include Notice, Instructions, this Proposal, Specifications, Contract, and any and all addenda) and all other conditions of the Proposal, agrees to enter into a contract with the City the below listed fees for the performance of this Specification, complete in every respect, in strict accordance with the contract documents at and for fees listed below.

ADDENDA RECEIPT: The receipt of addenda to the specification numbers _____ through _____ are hereby acknowledged. Failure of any submitter to receive any addendum or interpretation of the specifications shall not relieve the submitter from any obligations specified in the request. All addenda shall become part of the final contract document.

<u>Item</u>	<u>Description</u>	<u>Qty.</u>	<u>Unit cost</u>	<u>Total Cost</u>
1.	5 Cubic Yard Dump Body	3 each	\$_____	\$_____
2.	Option: Aero Model 575 Easy Cover tarp system installed.	3 each	\$_____	\$_____

BID SECURITY REQUIRED: _____ YES X NO

AFFIRMATIVE ACTION PROGRAM: Successful bidder will be required to comply with the provisions of the City's Affirmative Action Policy (Contract Compliance, Sec. 1.16). The Equal Opportunity Officer will determine compliance or non-compliance with the City's policy upon a complete and substantial review of successful bidder's equal opportunity policies, procedures and practices.

The undersigned signatory for the bidder represents and warrants that he has full and complete authority to submit this proposal to the City, and to enter into a contract if this proposal is accepted.

RETURN 2 COMPLETE COPIES OF PROPOSAL AND SUPPORTING MATERIAL.
MARK OUTSIDE OF BID ENVELOPE: SEALED BID FOR SPEC. 04-305

COMPANY NAME

BY (Signature)

STREET ADDRESS or P.O. BOX

(Print Name)

CITY, STATE ZIP CODE

(Title)

TELEPHONE No. FAX No.

(Date)

**EMPLOYER'S FEDERAL I.D. NO.
OR SOCIAL SECURITY NUMBER**

ESTIMATED DELIVERY DAYS

E-MAIL ADDRESS

TERMS OF PAYMENT

Bids may be inspected in the Purchasing Division offices during normal business hours, after tabulation by the purchasing agent. If you desire a copy of the bid tabulation to be mailed to you, you must enclose a self-addressed stamped envelope with your bidding documents. Bid tabulations can also be viewed on our website at: lincoln.ne.gov Keyword: Bid

EQUIPMENT SPECIFICATIONS
FOR
5 CUBIC YARD DUMP BODY/HYDRAULIC
SYSTEM/LIGHTING SYSTEM-SNOW PLOW HITCH

1. APPLICATION

- 1.1 This dump body and accessory equipment will be mounted on a 2005 35,000 GVWR, 84" CA cab and chassis for use by the City of Lincoln for hauling of earth, construction rubble, crushed rock and in snow plowing and ice control operations.
- 1.2 Detailed specification of cab and chassis will be provided upon request.

2. MODEL

- 2.1 The equipment furnished under these specifications shall be new of the latest improved model in current production as offered to the commercial trade.
 - 2.1.1 Bodies are to be Western style cross-memberless design.
- 2.2 Bid shall include all installation, pick up of cab and chassis from 901 North 6th Street, Lincoln, Nebraska, and delivery costs.
- 2.3 Exceptions to any part of this bid document shall be clearly noted by Item # on your company letter head and signed by the appropriate authority.

Company Name_____

Meets Specs.

<u>Yes</u>	<u>No</u>	3.	<u>BODY</u>
___	___	3.1	5 cubic yard capacity, struck <u>minimum</u> .(less side boards)
___	___	3.2	Length 10 foot.
___	___	3.3	Width 84 inches (inside).
___	___	3.4	Side height 24 to 26 inches.
___	___	3.5	Head height to be manufacture's recommended for body/hoist combination.
___	___	3.6	8 inch 23.0 #/ft. structural I-beam long sills.
___	___	3.7	3/16 inch AR400 steel floor with radius edges.
___	___	3.8	3/16 inch AR400 steel sides with outward sloped seamless horizontal bracing at mid point.
___	___	3.9	3/16 inch AR400 steel front panel with reinforced top edge and horizontal brace.
___	___	3.10	Fully boxed outward sloped top rail.
___	___	3.11	Outward sloped rub (bottom) rail.
___	___	3.12	3/16 inch AR400 steel front corner posts and full depth rear corner posts.
___	___	3.13	8 inch 13.75 #/ft. structural channel rear apron full depth to long sills and full width of box, fully attached to rear corner posts and floor.
___	___	3.14	2-1/2" wide side board pockets with 6 inch 13.00 #/ft. minimum structural channel side boards primed and painted black.

Company Name_____

Meets Specs.

Yes No

- | | | | |
|-----|-----|--------|---|
| ___ | ___ | 3.15 | Full length walk rail shall be installed on both sides of dump body. |
| ___ | ___ | 3.15.1 | Walk rail shall be constructed of step grip perforated metal channel.
(Buyers #SG1501048 3 Row Ladder Rung) |
| ___ | ___ | 3.15.2 | Walk rail shall be installed at mid point between rub rail and horizontal
bracing flush with front and rear corner posts. |
| ___ | ___ | 3.16 | Full length tarp rail installed on both sides of dump body. |
| ___ | ___ | 3.16.1 | Tarp rail shall be constructed of 1/4 x 2 inch steel flat. |
| ___ | ___ | 3.16.2 | Tarp rail shall be installed at mid point between top rail and
horizontal bracing. |
| ___ | ___ | 3.17 | Steel construction, stow-a-way design access ladders shall be installed on right
and left side of body next to front corner post. |
| ___ | ___ | 3.17.1 | Ladder shall be approximately 20 inches wide. |
| ___ | ___ | 3.17.2 | Pull-out section to be approximately 30 inches long and designed to
angle out 10 inches at the bottom, in fold down position. |
| ___ | ___ | 3.17.3 | 20 x 2.5 inch grab handles constructed of 3/4 inch rolled round
installed vertically on front corner post to assist in the use of the ladder. |
| ___ | ___ | 3.18 | In cab controlled electric vibrator, securely installed on right underside of floor with
reinforcement as required (Tendaire Model #3500 with automatic timer) |
| ___ | ___ | 3.19 | Body light provisions will be for clearance, rear identification and side markers
only. |
| ___ | ___ | 3.19.1 | Stop/tail/turn, backup and strobe light provisions are part of the
Whelen lighting package specified. |
| | | | |
| ___ | ___ | 4. | <u>TAILGATE</u> |
| ___ | ___ | 4.1 | 3/16" AR400 steel tailgate with lifting loop. |
| ___ | ___ | 4.2 | Fully boxed with horizontal brace and two triple boxed vertical reinforcements - six
panel design |
| ___ | ___ | 4.3 | Tailgate height 32 to 34 inches. |
| ___ | ___ | 4.4 | Double-acting upper hinged, lower lever type hooks, with 3/8" alloy spreading
chains and heavy gauge flexo sleeving. |
| ___ | ___ | 4.5 | Upper and lower dog-leg slotted chain keepers. |
| ___ | ___ | 4.6 | Top and bottom hinge pins shall be 1-1/4" diameter cold drawn round stock with
positive type lock mechanism. |
| ___ | ___ | 4.7 | Top pins will be removable, have grease zerks, stop rotation mechanism and
safety lock hardware. |
| ___ | ___ | 4.8 | Cab-controlled electric over pneumatic tailgate release. |
| | | | |
| ___ | ___ | 5. | <u>CAB SHIELD</u> |
| ___ | ___ | 5.1 | Maximum width, to allow for right side vertical exhaust. |
| ___ | ___ | 5.2 | 8 gauge A1011 Grade 50 steel construction. |

Company Name_____

Meets Specs.

Yes No

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|-----|-----|-----|--|
| ___ | ___ | 5.3 | 1/2 shield to project a <u>maximum</u> of 24 inches out from body head. |
| ___ | ___ | 5.4 | Shield to be installed 4 inches above cab roof. |
| ___ | ___ | 5.5 | Horizontal portion to have a <u>minimum</u> of 5 degrees of slope back to the body |
| ___ | ___ | 5.6 | Cab shield to be securely braced and welded to body. |
| ___ | ___ | 5.7 | Cab shield shall be designed to accept the optional tarp system as described in Item 16.1 of these specifications. |

6. HOIST

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|-----|-----|------|--|
| ___ | ___ | 6.1 | Underbody double acting hydraulic with full sub-frame. |
| ___ | ___ | 6.2 | Double equalizing arm or roller combo design. |
| ___ | ___ | 6.3 | N.T.E.A. class 50 hoist <u>minimum</u> . (As published in N.T.E.A. hoist chart) |
| ___ | ___ | 6.4 | Lifting capacity 17 ton <u>minimum</u> . |
| ___ | ___ | 6.5 | Dump angle 50 degrees <u>minimum</u> . |
| ___ | ___ | 6.6 | Mounting height 13 inches <u>maximum</u> . |
| ___ | ___ | 6.7 | 6" x 8" x 1/2" structural angle rear hinges with 2" stainless steel pins connecting through 2-1/2" blocks with replaceable greaseless composite bushings. |
| ___ | ___ | 6.8 | Street and curb side fold down design body props.(pin type not acceptable) |
| ___ | ___ | 6.9 | Body raise indicator light switch.(indicator light is in control console) |
| ___ | ___ | 6.10 | Critical hoist pivot points will have replaceable greaseless composite bushings.(NOTE: Body, hoist, and cylinder shall be supplied by a single manufacturer) |

7. LIGHTING SYSTEM

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|-----|-----|-------|---|
| ___ | ___ | 7.1 | Lighting must meet F.M.V.S.S. 108. |
| ___ | ___ | 7.2 | All clearance, side marker and rear identification markers required to meet 108 Standards to be grommet mounted LED. |
| ___ | ___ | 7.3 | Existing stop/tail and turn lights shall be removed. |
| ___ | ___ | 7.4 | Wiring harness for all 108 lighting to be factory assembled one piece design with sealed connections securely attached to body. |
| ___ | ___ | 7.4.1 | Splices will be limited as much as possible but if required will be solder heat shrink connections. Crimp type or SCOTCK-LOC connections are <u>not</u> acceptable. |
| ___ | ___ | 7.4.2 | Stainless steel cable/wire clamps and stainless steel hardware. 7.4.2.1 The use of adhesive or frame clip type cable/wire clamps is <u>not</u> acceptable. |
| ___ | ___ | 7.5 | North American Signal Company model AB2-72 light mounting bar. |
| ___ | ___ | 7.5.1 | Mounting height to be as low as possible for cab provided. |
| ___ | ___ | 7.6 | Whelen Model DOT3-202D lighting system.(no exception) |
| ___ | ___ | 7.7 | Whelen DOT3-6HBG strobe head with branch guard mounted in center of light bar. |

Company Name_____

Meets Specs.

Yes No

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|---------------|---------------|--------|---|
| <u> </u> | <u> </u> | 7.8 | Whelen DOT3-202D stainless steel light assemblies to include linear strobe, LED brake/tail/turn and incandescent back-up lights mounted on outside rear corner posts. |
| <u> </u> | <u> </u> | 7.9 | Whelen DOT3-ISP94 strobe light power supply mounted behind drivers seat on a vertical bracket assembly to reduce the chance of moisture damage. (note: DIP4 diagnostic panel to be in-dash mounted) |
| <u> </u> | <u> </u> | 7.10 | Heavy-duty corrosion resistant TPR jacketed cable set with "Deutsch" water proof connectors. |
| <u> </u> | <u> </u> | 7.11 | Strobe lights to be controlled through the Wired Rite console and be capable of the following. |
| <u> </u> | <u> </u> | 7.11.1 | Front strobe only. |
| <u> </u> | <u> </u> | 7.11.2 | Rear strobes only. |
| <u> </u> | <u> </u> | 7.11.3 | Both front and rear strobes. |
| <u> </u> | <u> </u> | 7.11.4 | Hi-low intensity. |
| <u> </u> | <u> </u> | 7.12 | Strobe lenses to be amber. |
| <u> </u> | <u> </u> | 7.13 | Grote #64261-4 snow plow lights installed on right and left side of light bar. |
| <u> </u> | <u> </u> | 7.14 | All wiring from plow and strobe lights installed on the light mount bar shall be neatly assembled in a single loom and securely attached to the back of cab using insulated stainless steel cable/wire clamps and stainless steel sheet metal screws. |

8. ICC BUMPER AND FRAME CUT OFF

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|---------------|---------------|-------|--|
| <u> </u> | <u> </u> | 8.1 | Dimensions are intended to be general with modifications as required to allow for truck frame height and desired pintle hook height. |
| <u> </u> | <u> </u> | 8.2 | Bumper frame constructed of 3 inch 3/8 web channel. |
| <u> </u> | <u> </u> | 8.3 | Frame dimensions 34 inches wide x 26 inches high with top of side channels approximately 4 inches below top of truck frame, to allow for body clearance in full raised position. |
| <u> </u> | <u> </u> | 8.4 | Lower frame channel 16 inches from ground. |
| <u> </u> | <u> </u> | 8.5 | 3/4 inch plate steel pintle hook mounting plate centered between side channel frame and attached to upper and lower horizontal frame. |
| <u> </u> | <u> </u> | 8.6 | Pintle hook mounting plate dimensions 10 inches x 10 inches. |
| <u> </u> | <u> </u> | 8.7 | 3/8 x 2-1/2 inch flat steel frame braces from lower outside corner of bumper frame to bottom of truck frame, 25 inches long (bolted to truck frame) |
| <u> </u> | <u> </u> | 8.8 | 3/8 x 2-1/2 inch flat steel frame braces from pintle hitch mounting plate to bottom of truck frame, 30 inches long (bolted to truck frame) |
| <u> </u> | <u> </u> | 8.9 | 20 ton pintle hook (Buyers PH20) attached with grade #8 bolts and lock nuts with 3/8" safety chain hooks and D-rings (Buyers B46). (See attached diagram) |
| <u> </u> | <u> </u> | 8.9.1 | Pintle hook mounting height: 21" ground to hook cradle. |

Company Name_____

Meets Specs.

Yes No

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|-----|-----|------|---|
| ___ | ___ | 8.10 | If angle frame cutoff as shown in diagram is not required for body clearance in full raised position, straight frame cutoff is acceptable. |
| ___ | ___ | 8.11 | If braces as specified reduce axle travel, by coming into contact with components or equipment, modifications to the brace position or design is requested. |
| ___ | ___ | 8.12 | If removed, the factory rear tow hooks are to be reinstalled in a similar location following bumper installation. |

9. MISCELLANEOUS EQUIPMENT

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|-----|-----|-------|---|--|
| ___ | ___ | 9.1 | Inset mount bracket for trailer brake glad hands and trailer connector shall be installed under hoist rear hinge plate. | |
| ___ | ___ | 9.1.1 | Mount plate shall be installed as deep as possible and still allow for easy connection of air lines. | |
| ___ | ___ | 9.1.2 | Vendor to supply color coded glad hands with dust covers and trailer connector as specified. | |
| ___ | ___ | 9.2 | Trailer connector (Car Quest #CPR70080) shall be installed in center of inset mount plate with glad hands on the right and left side. | |
| ___ | ___ | 9.3 | Mud flaps to be installed ahead of and behind rear tires(s). | |
| ___ | ___ | 9.3.1 | Rear mud flaps to be non-free swinging design and front flaps to include anti-sail device. | |

10. GENERAL INFORMATION

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|-----|-----|------|---|--|
| ___ | ___ | 10.1 | One (1) parts book shall be furnished. | |
| ___ | ___ | 10.2 | Body to be securely mounted in a position to give approximately 4 inches clearance between the head of the body and rear of the cab. | |
| ___ | ___ | 10.3 | All components of the hydraulic system to include pump, reservoir, hose, valving and controls shall be secure and installed in a professional manner. | |
| ___ | ___ | 10.4 | All welds are to be chipped, brushed and painted with black enamel. | |
| ___ | ___ | 10.5 | The body shall be mounted on the truck as a complete unit and ready for satisfactory operation as a dump truck with central hydraulic system. | |
| ___ | ___ | 10.6 | Body shall be furnished with all applicable clearance lights and reflectors to meet all F.M.V.S.S. and OSHA requirements. | |
| ___ | ___ | 10.7 | Body supplier shall affix the proper GVW certification sticker prior to delivery of unit to Public Works Garage. | |

11. DELIVERY AND WARRANTY REQUIREMENTS

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|-----|-----|------|--|--|
| ___ | ___ | 11.1 | The City of Lincoln will provide new 2005 cab and chassis (35,000 GVWR 84 inch C/A) for mounting of the dump body and specified equipment | |
| ___ | ___ | 11.2 | It is the responsibility of the seller to transport the cab/chassis from the Fleet Services Garage, 901 North 6th Street, Lincoln, Nebraska, to the seller's place of business | |

Company Name_____

Meets Specs.

Yes No

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|-----|-----|--------|--|
| ___ | ___ | 11.3 | Unit completed shall be delivered F.O.B. to the Fleet Services Garage, 901 North 6th Street, Lincoln, Nebraska. Units shall be complete and ready for use upon delivery |
| ___ | ___ | 11.4 | Manufacture's standard warranty shall apply. |
| ___ | ___ | 11.4.1 | Please provide information concerning the Term and Conditions of warranty with your bid proposal. |
| ___ | ___ | 11.5 | During the warrant period, it shall be the responsibility of the seller to perform warranty repairs F.O.B., Fleet Services Garage, 901 North 6th Street, Lincoln, Nebraska or, at the seller's discretion, to transport the equipment to a factory-authorized repair facility for such repairs. All transportation costs associated with such warranty repairs will be paid by the seller. |

12. CENTRAL HYDRAULIC SYSTEM

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| ___ | ___ | 12.1 | See Hydraulic System Specifications |
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13. SNOW PLOW HITCH AND FRAME

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|-----|-----|------|------------------------------------|
| ___ | ___ | 13.1 | See Snow Plow Hitch Specifications |
|-----|-----|------|------------------------------------|

14. CUSTOM SWITCH AND HYDRAULIC CONTROL CONSOLE

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|-----|-----|--------|---|
| ___ | ___ | 14.1 | Custom switch and control console shall be: Wired Rite Systems, Inc. 5793 Skylane Blvd. Windsor, CA 95492 Ph #800-538-7483. |
| ___ | ___ | 14.1.1 | Console part # X-CLN-31688 (no exception on make or model) |
| ___ | ___ | 14.2 | Console shall be installed between drivers and passenger seat with switch panel facing drivers seat. |
| ___ | ___ | 14.2.1 | Exact installation location may vary depending on cab design and transmission access panel location. |
| ___ | ___ | 14.2.2 | Contact Jim Chiles at 402-441-4941 for installation location. |
| ___ | ___ | 14.3 | Power to custom console shall be minimum 10 ga. wiring direct from battery. |

15. BODY PREPARATION AND PAINT

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|-----|-----|--------|--|
| ___ | ___ | 15.1 | Items to be painted to match color of cab: |
| ___ | ___ | 15.1.1 | Full exterior of body to include both sides of the tailgate. |
| ___ | ___ | 15.1.2 | Inside of body, not including floor. |
| ___ | ___ | 15.2 | Items to be painted black: |
| ___ | ___ | 15.2.1 | Underside of body. |
| ___ | ___ | 15.2.2 | Inside of rear corner posts. |
| ___ | ___ | 15.2.2 | Hoist frame. |
| ___ | ___ | 15.2.3 | ICC bumper. |
| ___ | ___ | 15.2.4 | Side boards. |
| ___ | ___ | 15.3 | Metal will be completely primed with rust inhibitive primer/sealer that is recommended by and compatible with the finish coat manufacture. |
| ___ | ___ | 15.4 | Primer/sealer will be applied in accordance with the Product Data Sheet. |

Company Name_____

Meets Specs.

Yes No

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|-----|-----|------|---|
| ___ | ___ | 15.5 | Finish coat to be Sherwin Williams SUNFIRE acrylic urethane or equal. |
| ___ | ___ | 15.6 | Finish coat will be applied in accordance with the Product Data Sheet. |
| ___ | ___ | 15.7 | Finish must be smooth, shiny, free of runs, overspray and other defects. |
| ___ | ___ | 15.8 | Entire system will have a minimum of 4.0 mil dry film thickness. |
| ___ | ___ | 15.9 | Bidder must provide Product Data Sheets for proposed coating products with the bid. |

16. OPTION

- | | | | |
|-----|-----|----------|---|
| ___ | ___ | 16.1 | Aero Model 575 Easy Cover tarp system installed, complete as follows: |
| ___ | ___ | 16.1.1 | Mounting to be on top front portion of cab shield. |
| ___ | ___ | 16.1.2 | 12 volt electric motor with right angle gear box designed to |
| | | 16.1.2.1 | Control switch is provided with the Wired Rite console. |
| ___ | ___ | 16.1.3 | 85" wide polyester mesh tarp with gravity type "Weight-Down" system, which requires no additional arms or springs. |
| ___ | ___ | 16.1.4 | Side mount "Power-Pack" fully encased spring assemblies. |
| ___ | ___ | 16.1.5 | Polished aluminum side arms, angled approximately 26 degrees to allow the arms to be recessed in the open position. |
| ___ | ___ | 16.1.6 | One piece polished aluminum wind deflector. |
| ___ | ___ | 16.1.7 | The length will be adequate to cover the entire body in the closed position. |

SPECIFICATIONS
FOR
CUSTOM NON-FOLDING LOW-PROFILE QUICK LINK SNOW PLOW HITCH WITH
ADJUSTABLE LIFT ARM

1. APPLICATION:

- 1.1 This snow plow hitch will be mounted on a 2005 52,000 GVWR 102" CT cab and chassis, and 2005 35,000 GVWR 84" CA cab and chassis trucks for use by the Public Works & Utilities Department in snow removal projects on arterial and residential streets.
- 1.2 The plow utilized in conjunction with hitch will be a steel 10' x 36" hydraulic reversible design with a weight of approximately 1,600 lbs.
- 1.3 Truck specifications available upon request.

2. MODEL:

- 2.1 The equipment furnished under these specifications shall be new custom designed and manufactured to meet or exceed the following specifications.
- 2.2 The bidders shall provide a engineering quality drawing of the hitch being provided to include all relevant dimensional and material information for approval.

Company Name_____

Meets Specs.

Yes No

3. CUSTOM HITCH

- | | | | |
|-----|-----|-------|---|
| ___ | ___ | 3.1 | Heavy-duty, tailored, non-folding low-profile design with minimum ½" steel side cheek plates. |
| ___ | ___ | 3.2 | Hitch shall be designed and manufactured specifically for the truck provided. |
| ___ | ___ | 3.3 | All thrust loads must be transferred to chassis frame not to axle or spring assembly. |
| ___ | ___ | 3.4 | Quick hitch positive lock design with Flink Model #QL2 welded to lower push plate, with plow attachment point set at 16 inches above ground level. |
| ___ | ___ | 3.5 | The hitch must be designed to allow the tilt-hood with stationary grill to fully open without contacting any portion of the hitch or lift arm. |
| ___ | ___ | 3.6 | Lowest point of hitch to allow a minimum of 12 inches ground clearance. |
| ___ | ___ | 3.7 | Hitch shall be primed and painted black and installed with grade 8 bolts and lock nuts per manufacturers recommendations. |
| ___ | ___ | 3.8 | Minimum 3 inch bore 10 inch stroke hydraulic single acting lift cylinder and square tube design adjustable lift arm. |
| ___ | ___ | 3.8.1 | The lift arm shall be pin adjustable to lengths of approximately 30, 35 and 40 inches when measured from the arm pivot point to the chain lock and be designed to accept two 3/8" plow lift chains. |
| ___ | ___ | 3.9 | If removed, the factory front tow hooks are to be reinstalled in a similar location following hitch installation. |
| ___ | ___ | 3.10 | See diagram 1A for general snow plow hitch design. |

CENTRAL HYDRAULIC SYSTEM
for
DUMP BODY - IN BOX MATERIAL SPREADER - REVERSIBLE SNOW PLOW

1. BASIC DESIGN

- 1.1 Transmission P.T.O. driven load sensing central hydraulic system.
- 1.2 System must be capable of supplying and controlling all motors and actuators as detailed.

2. GENERAL INFORMATION

- 2.1 All hydraulic hose, fittings, adapters, and quick disconnect couplings used in the central hydraulic system shall be specifically designed for hydraulic system applications and be Aeroquip brand or equal quality with individual components designed to meet the requirements of:
 - 2.1.1 System operating pressure and temperature.
 - 2.2.1 Fluid compatibility.
- 2.2 All pressure and return hoses will have 37° JIC swivel fitting on both ends for ease of replacement.(Pressure line at pump to be 4-bolt flange)
- 2.3 **The use of standard black or galvanized pipe fittings is NOT ACCEPTABLE.**
- 2.4 All hydraulic components shall be installed in a neat and professional manner conforming to current engineering and manufacturers practices.
- 2.5 Transmission is Allison RDS 3500 Series without retarder. Other truck specifications available upon request.

Company Name _____

Meets Specs

Yes No

3. HYDRAULIC PUMP AND PUMP DRIVE

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|-------------|-------------|---|
| <u> </u> | <u> </u> | 3.1 Rexroth Model # A10V071DFR/31RPKC 92 N sided ported variable displacement hydraulic pump. |
| <u> </u> | <u> </u> | 3.2 PTO shall be a Chelsa Model 277 with the following features: |
| <u> </u> | <u> </u> | 3.2.1 Power shift design actuated through switch in the Wired Rite console designed for extended road speed operation. |
| <u> </u> | <u> </u> | 3.2.2 Pressure lubricated. |
| <u> </u> | <u> </u> | 3.2.3 Approximately 1 to 1 drive ratio. |
| <u> </u> | <u> </u> | 3.2.4 Mounting position shall be left side (8 o'clock). |
| <u> </u> | <u> </u> | 3.3 PTO to hydraulic pump drive shall be as follows: |
| <u> </u> | <u> </u> | 3.3.1 Minimum Spicer 1280 drive components. |
| <u> </u> | <u> </u> | 3.3.2 Slip yoke design with grease able u-joints at each end. |
| <u> </u> | <u> </u> | 3.3.3 All shaft locking devices to be wire tied. |
| <u> </u> | <u> </u> | 3.3.4 Shaft to be professionally balanced to insure smooth operation. |
| <u> </u> | <u> </u> | 3.4 Hydraulic pump shall be left side frame mounted directly across from hydraulic reservoir to allow for the shortest possible pressure and suction line hose routing. |

4. HYDRAULIC VALVES

- | | | |
|-------------|-------------|--|
| <u> </u> | <u> </u> | 4.1 Rexroth MP-18 pressure compensated load sensing design arranged as follows: |
| <u> </u> | <u> </u> | 4.1.1 1st section - 12 VDC Single Acting Proportional, plow up/down - 7 GPM spool with hollow compensator flow adjustment. |
| <u> </u> | <u> </u> | 4.1.2 2nd section - 12 VDC Double Acting Proportional, plow angle left/right-7GPM spool with hollow compensator flow adjustment and adjustable port relief to A and B ports (set at 2,000 psi.) |
| <u> </u> | <u> </u> | 4.1.3 3rd section - 12 VDC Double Acting Proportional, hoist up/down 35 GPM spool with solid compensator full flow. |
| <u> </u> | <u> </u> | 4.1.4 4th section - 12 VDC Single Acting Proportional, spinner drive, 7 GPM spool with solid compensator full flow. |
| <u> </u> | <u> </u> | 4.1.5 5th section 12 VDC Single Acting Proportional, conveyor drive, 15 GPM spool with solid compensator full flow. |
| <u> </u> | <u> </u> | 4.2 A 5000 psi glycerin filler gauge shall be installed in appropriate port to constant read system pressure |

Meets Specs

Yes No5. HYDRAULIC CONTROLS

- ___ ___ 5.1 Plow functions through J.R. Merritt Plus (#VCS2V-101.7855) joystick control, for single acting snow plow up/down, double acting snow plow right/left with forward motion mechanical lock for plow down float position.
- ___ ___ 5.2 Hoist function through J.R. Merritt Single Axis (#CS2E2RZ-PFC) control for double acting body up/down with mechanical center lock.
- ___ ___ 5.3 Controls to hydraulic valves through heavy-duty cable assembly with weather proof connectors through bulkhead on VM tank assembly. CPC connection on console end, Cannon "sure seal" connectors on valve end.
- ___ ___ 5.3.1 LED inline activation indicators on plow and hoist circuits.
- ___ ___ 5.4 Controls for 4th section, spinner drive, will be provided and installed by the City of Lincoln.
- ___ ___ 5.5 Controls for 5th section, conveyor drive, will be provided and installed by the City of Lincoln.
- ___ ___ 5.6 System pressure will be set at the pressure recommended by the hoist manufacture and stand-by pressure set at 300 psi.

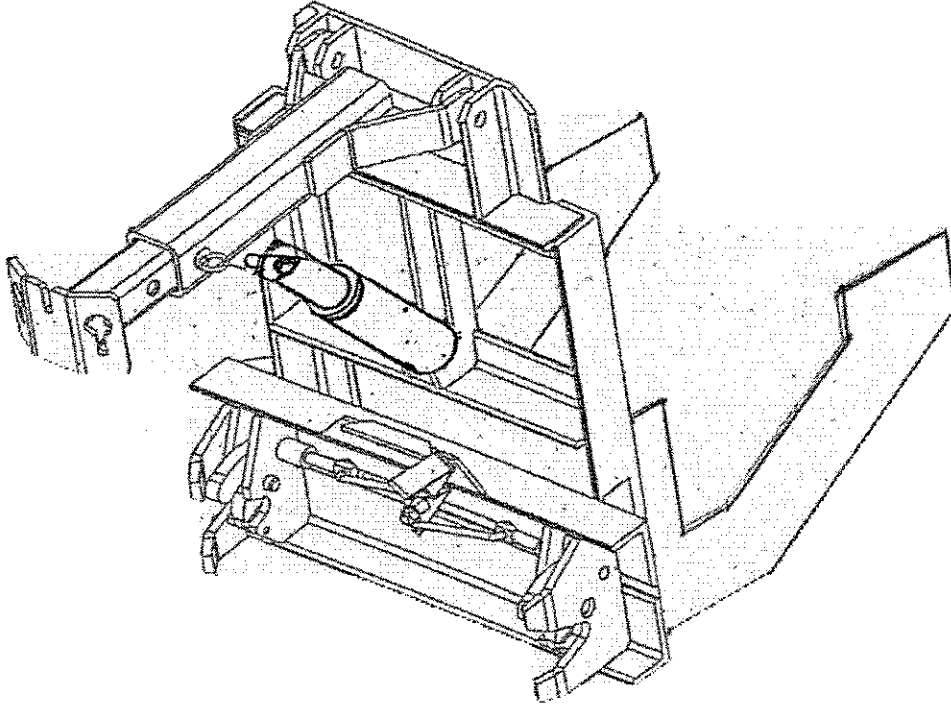
6. HYDRAULIC LINES AND FITTINGS

- ___ ___ 6.1 All hoses from output ports on reservoir to snow plow lift cylinder and reversing cushion valve shall be 1/2" with a minimum 3000 PSI working pressure.
- ___ ___ 6.2 Snow plow quick attach couplers at cushion valve shall be Aeroquip FD45 series 1/2" stainless steel.
- ___ ___ 6.2.1 Cushion valve will be provided and install on the left (street side) of the plow hitch in a position that allows for easy coupler connections.
- ___ ___ 6.3 Spinner and conveyor pressure hoses shall be 1/2" with a minimum 3000 PSI working pressure.
- ___ ___ 6.3.1 Spinner and conveyor hoses shall extend from output ports on valve enclosure to the ICC bumper (see diagram).
- ___ ___ 6.3.2 A mounting plate with bulkhead style fittings shall be attached to the inside of the ICC bumper.
- ___ ___ 6.3.3 Aeroquip FD45 series 1/2" stainless steel quick attach couplers shall be installed on bulkhead fittings and shall not extend beyond outer edge of bumper.
- ___ ___ 6.4 Return hose for Material Spreader shall be 3/4" with a minimum 3000 PSI working pressure.
- ___ ___ 6.4.1 Return hose shall be installed in the same manner as the spinner and conveyor hoses with Aeroquip FD45 series 3/4" stainless steel quick attach coupler.
- ___ ___ 6.5 Hoses to dump body cylinder(s) shall be the size and pressure rating as recommended by body and cylinder manufacturer.
- ___ ___ 6.6 All lines and hoses shall be securely fastened in a neat and professional manner.

7. RESERVOIR

- ___ ___ 7.1 Component Technology Model #CT-VM30S-LS frame mounted reservoir.
- ___ ___ 7.2 Magnetic drain plug.
- ___ ___ 7.3 Suction screen.
- ___ ___ 7.4 Screened filler neck.
- ___ ___ 7.5 Sight/temperature gauge.
- ___ ___ 7.6 10 micron tank mounted filter.
- ___ ___ 7.7 By-pass and condition gauge.
- ___ ___ 7.8 Shut off valve.
- ___ ___ 7.9 Left side (street) frame mounted as close to back of cab as possible.

CUSTOM NON-FOLDING LOW-PROFILE
QUICK LINK SNOWPLOW HITCH
WITH ADJUSTABLE LIFT ARM



Approximate dimensions:

Lift arm extension: 30" to 40" from pivot point to end.

Overall height : 38"

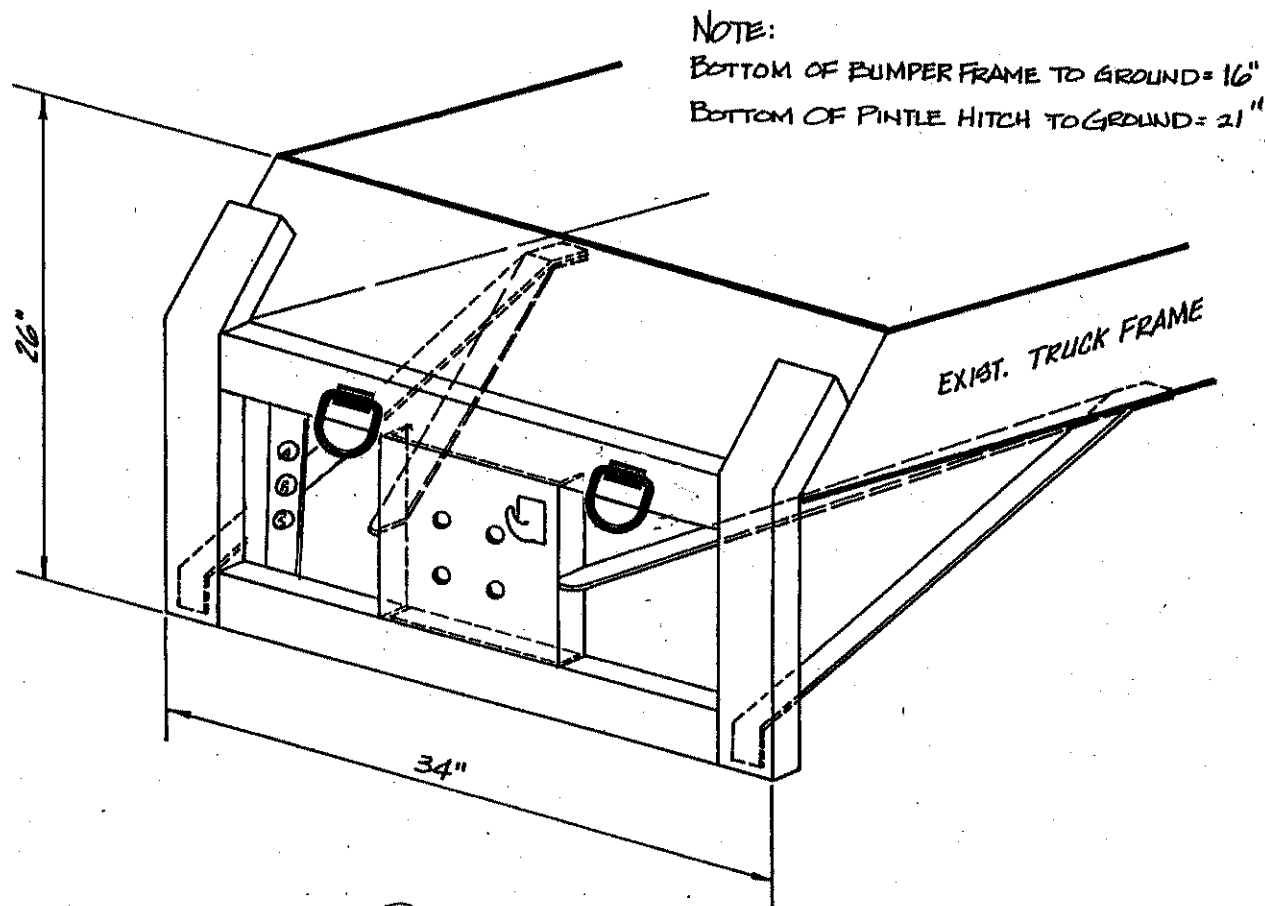
Height above top of truck frame: 12"

Overall width: 34"

Ground to center of plow attachment point: 16"

Note: The hitch must be designed to allow the tilt-hood with stationary grill to fully open without contacting any portion of the hitch or lift arm.

Diagram 1A.



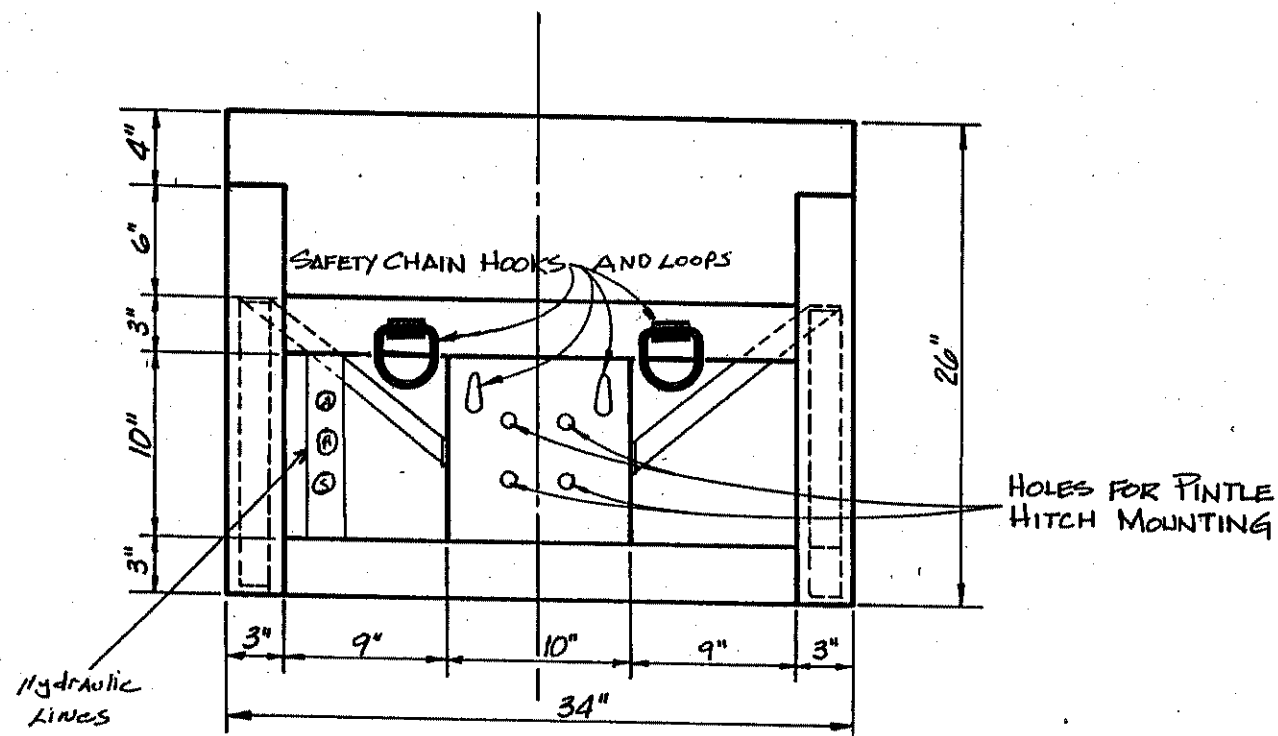
DETAIL OF
I.C.C. BUMPER
(PERSPECTIVE)
SCALE: 1/2" = 1'-0"

JSC
10-14-86

NOTE:

BOTTOM OF BUMPER FRAME TO GROUND = 16"

BOTTOM OF PINTLE HITCH TO GROUND = 21"



DETAIL OF
I.C.C. BUMPER
(ELEVATION)
SCALE: $1\frac{1}{2}" = 1'-0"$

JSC
10-14-86

INSTRUCTIONS TO BIDDERS

CITY OF LINCOLN, NEBRASKA PURCHASING DIVISION

1. BIDDING PROCEDURE

- 1.1 Bidder shall submit two (2) complete sets of the bid documents and all supporting material. All appropriate blanks shall be completed. Any interlineation, alteration or erasure on the specification document shall be initialed by the signer of the bid. Bidder shall not change the proposal form nor make additional stipulations on the specification document. Any amplified or qualifying information shall be on the bidder's letterhead and firmly attached to the specification document.
- 1.2 Bid prices shall be submitted on the Proposal Form included in the bid document.
- 1.3 Bidders may submit a bid on an "all or none" or "lump sum" basis, but should also submit a quotation on an item-by-item basis. Bidding documents shall be clearly marked indicating the kind of proposal being submitted.
- 1.4 Each bid must be legibly printed in ink or by typewriter, include the full name, business address, and telephone number of the bidder; and be signed in ink by the bidder.
- 1.5 A bid by a firm or organization other than a corporation must include the name and address of each member.
- 1.6 A bid by a corporation must be signed in the name of such corporation by a duly authorized official thereof.
- 1.7 Any person signing a bid for a firm, corporation, or other organization must show evidence of his authority so to bind such firm, corporation, or organization.
- 1.8 Bids received after the time and date established for receiving bids will be rejected.

2. BIDDER'S SECURITY

- 2.1 Bid security, as a guarantee of good faith, in the form of a certified check, cashier's check, or bidder's bond, may be required to be submitted with this bid document, as indicated on the Proposal Form.
- 2.2 If alternate bids are submitted, only one bid security will be required, provided the bid security is based on the amount of the highest gross bid.
- 2.3 Such bid security will be returned to the unsuccessful bidders when the award of bid is made.
- 2.4 Bid security will be returned to the successful bidder(s) as follows:
 - 2.4.1 For single order bids with specified quantities: upon the delivery of all equipment or merchandise, and upon final acceptance by the City.
 - 2.4.2 For all other contracts: upon approval by the City of the executed contract and bonds.
- 2.5 City shall have the right to retain the bid security of bidders to whom an award is being considered until either:
 - 2.5.1 A contract has been executed and bonds have been furnished.
 - 2.5.2 The specified time has elapsed so that the bids may be withdrawn.
 - 2.5.3 All bids have been rejected.

- 2.6 Bid security will be forfeited to the City as full liquidated damages, but not as a penalty, for any of the following reasons, as pertains to this specification document:

- 2.6.1 If the bidder fails to deliver the equipment or merchandise in full compliance with the accepted proposal and specifications.
- 2.6.2 If the bidder fails or refuses to enter into a contract on forms provided by the City, and/or if the bidder fails to provide sufficient bonds or insurance within the time period as established in this specification document.

3. EQUAL OPPORTUNITY

- 3.1 Each bidder agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, disability, age, or marital status. Bidder shall fully comply with the provisions of Chapter 11.08 of the Lincoln Municipal Code.
- 3.2 Successful bidder will be required to comply with the provisions of the City's Affirmative Action Policy (Contract Compliance, Sec. 1.16).
- 3.3 The Equal Opportunity Officer will determine compliance or non-compliance with the City's Affirmative Action Policy upon a complete and substantial review of successful bidder's equal opportunity policies, procedures and practices.

4. DATA PRIVACY

- 4.1 Bidder agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, copyrights, patents and patent rights.
- 4.2 The bidder agrees to hold the City harmless from any claims resulting from the bidder's unlawful disclosure or use of private or confidential information.

5. BIDDER'S REPRESENTATION

- 5.1 Each bidder by signing and submitting a bid, represents that the bidder has read and understands the specification documents, and the bid has been made in accordance therewith.
- 5.2 Each bidder for services further represents that the bidder is familiar with the local conditions under which the work is to be done and has correlated the observations with the requirements of the bid documents.

6. INDEPENDENT PRICE DETERMINATION

- 6.1 By signing and submitting this bid, the bidder certifies that the prices in this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder prior to bid opening directly or indirectly to any other bidder or to any competitor; no attempt has been made, or will be made, by the bidder to induce any person or firm to submit, or not to submit, a bid for the purpose of restricting competition.

7. CLARIFICATION OF SPECIFICATION DOCUMENTS

- 7.1 Bidders shall promptly notify the Purchasing Agent of any ambiguity, inconsistency or error which they may discover upon examination of the specification documents.
- 7.2 Bidders desiring clarification or interpretation of the specification documents shall make a written request which must reach the Purchasing Agent at least seven (7) calendar days prior to the date and time for receipt of bids.
- 7.3 Interpretations, corrections and changes made to the specification documents will be made by written addenda.
- 7.4 Oral interpretations or changes to the Specification Documents made in any other manner, will not be binding on the City; and bidders shall not rely upon such interpretations or changes.

8. ADDENDA

- 8.1 Addenda are written instruments issued by the City prior to the date for receipt of bids which modify or interpret the specification document by addition, deletion, clarification or correction.
- 8.2 Addenda will be mailed or delivered to all who are known by the City to have received a complete set of specification documents.
- 8.3 Copies of addenda will be made available for inspection at the office of the Purchasing Agent.
- 8.4 No addendum will be issued later than forty-eight (48) hours prior to the date and time for receipt of bids, except an addendum withdrawing the invitation to bid, or an addendum which includes postponement of the bid.
- 8.5 Bidders shall ascertain prior to submitting their bid that they have received all addenda issued, and they shall acknowledge receipt of addenda on the proposal form.

9. ANTI-LOBBYING PROVISION

- 9.1 During the period between the bid close date and the contract award, bidders, including their agents and representatives, shall not directly discuss or promote their bid with any member of the City Council or City Staff except in the course of City-sponsored inquiries, briefings, interviews, or presentations, unless requested by the City.

10. BRAND NAMES

- 10.1 Wherever in the specifications or proposal form brand names, manufacturer, trade name, or catalog numbers are specified, it is for the purpose of establishing a grade or quality of material only; and the term "or equal" is deemed to follow.
- 10.2 It is the bidder's responsibility to identify any alternate items offered in the bid, and prove to the satisfaction of the City that said item is equal to, or better than, the product specified.
- 10.3 Bids for alternate items shall be stated in the appropriate brand on the proposal form, or if the proposal form does not contain blanks for alternates, bidder MUST attach to the specification documents on Company letterhead a statement identifying the manufacturer and brand name of each proposed alternate, plus a complete description of the alternate items including illustrations, performance test data and any other information necessary for an evaluation. The bidder must indicate any variances by item number

from the specification document no matter how slight. Bidder must fully explain the variances from the specification document, since brochure information may not be sufficient.

- 10.4 If variations are not stated in the proposal, it will be assumed that the item being bid fully complies with the City's specifications.

11. DEMONSTRATIONS/SAMPLES

- 11.1 Bidders shall demonstrate the exact item(s) proposed within seven (7) calendar days from receipt of such request from the City.
- 11.2 Such demonstration can be at the City delivery location or a surrounding community.
- 11.3 If bidder does not have an item in the area, it will be at the bidder's expense to send appropriate City personnel to the nearest location to view and inspect proposed item(s).
- 11.4 If items are small and malleable, and the bidder is proposing an alternate product, the bidder MUST supply a sample of the exact item. Samples will be returned at bidder's expense after receipt by the City of acceptable goods. Bidders must indicate how samples are to be returned.

12. DELIVERY

- 12.1 Each bidder shall state on his proposal form the date upon which he can make delivery of all equipment or merchandise. Time required for delivery is hereby made an essential element of the bid.
- 12.2 The City reserves the right to cancel orders, or any part thereof, without obligation, if delivery is not made within the time(s) specified on the proposal form.
- 12.3 All bids shall be based upon **inside** delivery of the equipment or merchandise F.O.B. the City at the location specified by the City, with all transportation charges paid.

13. WARRANTIES, GUARANTEES AND MAINTENANCE

- 13.1 Copies of the following documents must accompany the bid proposal for all items being bid:
 - 13.1.1 Manufacturer's warranties and/or guarantees.
 - 13.1.2 Bidder's maintenance policies and associated costs.
- 13.2 As a minimum requirement of the City, the bidder will guarantee in writing that any defective components discovered within a one (1) year period after the date of acceptance shall be replaced at no expense to the City. Replacement parts of defective components shall be shipped at no cost to the City. Shipping costs for defective parts required to be returned to the bidder shall be paid by the bidder.
- 13.3 Bidder Warrants and represents to the City that all software/firmware/hardware/equipment /systems developed, distributed, installed or programmed by Bidder pursuant to this Specification and Agreement.
 - 13.3.1 That all date recognition and processing by the software/firmware/hardware/equipment/system will include the four-digit-year format and will correctly recognize and process the date of February 29, and any related data, during Leap years; and
 - 13.3.2 That all date sorting by the software /firmware/hardware/ equipment/system that includes a "year category" shall be done based on the four-digit-year format. Upon being notified in writing by the City of the failure of any software/ firmware/

hardware /equipment /systems to comply with this Specification and Agreement, Contractor will, within 60 days and at no cost to the City, replace or correct the non-complying software/ firmware/ hardware/ equipment/ systems with software/firmware/ hardware/equipment/ systems that does comply with this Specification and Agreement.

- 13.3.3 No Disclaimers: The warranties and representations set forth in this section 13.3 shall not be subject to any disclaimer or exclusion of warranties or to any limitations of Licensor's liability under this Specification and Agreement.

14. ACCEPTANCE OF MATERIAL

- 14.1 All components used in the manufacture or construction of materials, supplies and equipment, and all finished materials, shall be new, the latest make/model, of the best quality, and the highest grade workmanship.
- 14.2 Material delivered under this proposal shall remain the property of the bidder until:
- 14.2.1 A physical inspection and actual usage of this material is made and found to be acceptable to the City; and
- 14.2.2 Material is determined to be in full compliance with the specifications and accepted proposal.
- 14.3 In the event the delivered material is found to be defective or does not conform to the specification documents and accepted proposal, then the City reserves the right to cancel the order upon written notice to the bidder and return materials to the bidder at bidder's expense.
- 14.4 Successful bidder shall be required to furnish title to the material, free and clear of all liens and encumbrances, issued in the name of the City of Lincoln, Nebraska, as required by the specification documents or purchase orders.
- 14.5 Selling dealer's advertising decals, stickers or other signs shall not be affixed to equipment. Vehicle mud flaps shall be installed blank side out with no advertisements. Manufacturer's standard production forgings, stampings, nameplates and logos are acceptable.

15. BID EVALUATION AND AWARD

- 15.1 The signed bid proposal shall be considered an offer on the part of the bidder. Such offer shall be deemed accepted upon issuance by the City of purchase orders, contract award notifications, or other contract documents appropriate to the work.
- 15.2 No bid shall be modified or withdrawn for a period of ninety (90) calendar days after the time and date established for receiving bids, and each bidder so agrees in submitting the bid.
- 15.3 In case of a discrepancy between the unit prices and their extensions, the unit prices shall govern.
- 15.4 The bid will be awarded to the lowest responsive, responsible bidder whose proposal will be most advantageous to the City, and as the City deems will best serve their requirements.
- 15.5 The City reserves the right to accept or reject any or all bids; to request rebids; to award bids item-by-item, by groups, or "lump sum"; to waive irregularities and technicalities in bids; such as shall best serve the requirements and interests of the City.

16. INDEMNIFICATION

- 16.1 The bidder shall indemnify and hold harmless the City, its members, its officers and employees from and against all claims, damages, losses, and expenses, including, but not limited to attorney's fees arising out of or resulting from the performance of the contract, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property other than goods, materials and equipment furnished under this contract) including the loss or use resulting therefrom; is caused in whole or part by any negligent act or omission of the bidder, any subcontractor, or anyone directly or indirectly employed by any one of them or anyone for whose acts made by any of them may be liable, regardless of whether or not it is caused by a party indemnified hereunder.
- 16.2 In any and all claims against the City or any of its members, officers or employees by an employee of the bidder, any subcontractor, anyone directly or indirectly employed by any of them or by anyone for whose acts made by any of them may be liable, the indemnification obligation under paragraph 16.1 shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the bidder or any subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

17. TERMS OF PAYMENT

- 17.1 Unless other specification provisions state otherwise, payment in full will be made by the City within thirty (30) calendar days after all labor has been performed and all equipment or other merchandise has been delivered, and all such labor and equipment and other materials have met all contract specifications.

18. LAWS

- 18.1 The Laws of the State of Nebraska shall govern the rights, obligations, and remedies of the Parties under this proposal and any agreement reached as a result of this process.

19. AFFIRMATIVE ACTION

- 19.1 The City of Lincoln-Lancaster County Purchasing Division provides equal opportunity for all bidders and encourages minority businesses and women's business enterprises to participate in our bidding process.

20. LIVING WAGE

- 20.1 The bidders agree to pay all employees employed in the performance of this contract, a base wage of not less than the City Living Wage per section 2.81.010 of the Lincoln Municipal Code. This wage is subject to change up or down every July.